

**Oroville Facilities Relicensing Program
Federal Energy Regulatory Commission Project No. 2100
Study Plan Reports Delivered to the Collaborative
(As of 07-12-04)**

<u>Resource Area/Study Report Name</u>		<u>Delivery Date</u>
<i>Cultural Resources</i>		
C1	F.R. Cultural Resources Ethnographic Inventory - Public	02/04
<i>Engineering and Operations</i>		
E1	Model Development	06/03
E1.1	Statewide Operations Model Development	06/03
E1.2	Local Operations Model Development (Final Enhancements Completed) (Confidential)	08/03
E1.3/E1.4/E1.5	Oroville Reservoir/Thermalito Complex/Feather River Temperature Model Development I.R. Temperature Model Presented to Engineering & Operations Work Group	04/03
E1.6	Feather River Flow-Stage Model Development	04/03
E2	Perform Modeling Simulations Operations Modeling Seminar #1 Operations Modeling Workshop #2 Operations Modeling Workshop #3 Operations Modeling Workshop #4 Operations Modeling Workshop #5	06/03 08/03 10/03 02/04 04/04
E3	Evaluate the Potential for Additional Hydropower Generation at Oroville (Confidential)	03/03
E6	Downstream Extent of Reasonable Control of Feather River Temperature by Oroville-Thermalito	10/03
E7	Oroville Reservoir Cold Water Pool Evaluation	07/03
<i>Environmental-Fisheries</i>		
F1	Evaluation of Project Effects on Non-Fish Aquatic Resources I.R. Task 1 - Review of Existing Literature and Data	04/03
F2	Evaluation of Project Effects on Fish Diseases I.R. Phase 1 - Literature Review and Desktop Study D.R. Task 1/Task 2 - Evaluation of Project Effects on Fish Diseases F.R.	11/02 03/03 06/04 (30 day comment cycle)
F3.1	Evaluation of Project Effects on Resident Fish and their Hab within Lake Oroville, its Upstream Tributaries, the Thermalito Complex, and the Oroville Wildlife Area F.R. Task 1A - Assessment of Potential Fish Passage Impediments above Lake Oroville's High Water Mark F.R. Task 1C - Comparison of Fish Distribution to Fish Habitat Distribution F.R. Task 2A/Task 3A - Fish Species Comparison: Lake Oroville, Thermalito Diversion Pool, & Thermalito Forebay I.R. Task 1C and F3.2 Task 4A - Fish Habitat GIS Coverage (GIS Maps) F.R. Task 2B - Evaluation of the Ability of Lake Oroville's Cold Water Pool to Support Salmonid Stocking Recommendations I.R. Task 2C - Evaluation of Lake Oroville's Water Surface Elevation Reductions on Bass Spawn Success F.R. Task 2D - Management Practices and Monitoring Studies of White Sturgeon F.R. Task 3B/Task 3C - Project Operations Influencing Fish Habitat and Water Quality in the Thermalito Diversion Pool and Thermalito Forebay F.R. Task 4B - Characterization of Cold Water Pool Availability in the Thermalito Afterbay I.R. Task 5A - One-Mile Pond Fish Species Composition I.R. Task 5B - Characterization of Fish Habitat in One-Mile Pond	05/04 06/04 (30 day comment cycle) 07/03 06/03 03/03 12/02 12/02 05/04 02/04 11/03 02/04
F3.2	Evaluation of Project Effects on Resident Fish and their Habitat in the Feather River Downstream of the Fish Barrier Dam D.R. Task 1 & F21 Task 2 - Fish Distribution in the Feather River below the Thermalito Diversion Dam to the Confluence with the Sacramento River I.R. Task 2 and F21 Task 1 - Literature Review of Life History and Habitat Requirements for Feather River Fish Species F.R. Task 2, F15 Task 1, and F21 Task 1 - Literature Review of Life History and Habitat Requirements for Feather River Fish Species F.R. Task 3A - Final Assessment of Potential Sturgeon Passage Impediments F.R. Task 3A - Final Assessment of Sturgeon Distribution and Habitat Use I.R. Task 4A and F3.1 Task 1C - Fish Habitat GIS Coverage (GIS Maps)	01/03 01/03 04/04 09/03 12/03 06/03

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Environmental-Fisheries - continued		
F5/7	Evaluation of Potential Effects of Fisheries Management Activities on ESA-Listed Fish Species F.R. Task 1	05/04
F8	Transfer of Energy and Nutrients by Anadromous Fish Migrations D.R. Revised - Transfer of Energy and Nutrients by Anadromous Fish Migrations Summary of Revisions to SP-F8 Technical Report	09/03 09/03
F9	Evaluation of Project Effects on Natural Salmonid Populations Phase 1 - Interim Literature Review Phase 1 Revised - Interim Literature Review	11/02 03/03
F10	Evaluation of Project Effects on Salmonids and Their Habitat in the Feather River below the Fish Barrier Dam I.R. Task 1C - Evaluation of Flow-Related Physical Impediments in the Feather River below the Fish Barrier Dam I.R. Task 1E - Pre-Spawning Chinook Salmon Migration Patterns and Holding Characteristics I.R. Task 1E - Identification and Characterization of Early Up-Migrant Chinook Salmon Holding Habitat Habitat and Habitat Use Patterns I.R. Task 2B - Steelhead Spawning Methods I.R. Task 2B - 2003 Lower Feather River Steelhead Redd Survey I.R. Task 2D - Evaluation of Flow Fluctuation Effects on Chinook Salmon Redd Dewatering in the Lower Feather River I.R. Task 3A - Distribution and Habitat Use of Steelhead and Other Fishes in the Lower Feather River F.R. Task 3A - Distribution and Habitat Use of Juvenile Steelhead and other Fishes of the Lower Feather River I.R. Task 3B - Growth Investigations of Wild Juvenile Steelhead in the Feather River using Mark and Recapture Techniques I.R. Task 3B - Steelhead Rearing Temperatures F.R. Task 3B - Growth Investigations of Wild and Hatchery Steelhead in the Lower Feather River I.R. Task 3C - Redd Dewatering and Juvenile Steelhead and Chinook Salmon Stranding in Lower Feather River I.R. Task 4A - Literature Review of Devices Used for Enumeration of Juvenile Steelhead Outmigrants F.R. Task 4A - River Flow Effects on Emigrating Juvenile Salmonids in the Lower Feather River F.R. Task 4B - Timing, Thermal Tolerance Ranges and Potential Water Temperature Effects on Emigrating Juvenile Salmonids in the Lower Feather River	01/03 03/04 04/03 05/03 07/03 02/04 01/03 04/04 06/03 07/03 02/04 06/03 01/03 12/03 10/03
F15	Evaluation of the Feasibility to Provide Passage for Anadromous Salmonids Past Oroville Facility Dams F.R. Task 4 - Fish Passage Model F.R. Task 1, F3.2 Task 2 and F21 Task 1 - Literature Review of Life History and Habitat Requirements for Feather River Fish Species F.R. Task 2 - Inventory of Potentially Available Habitat and Distribution of Juvenile and Adult Fish Upstream from Lake Oroville F.R. Task 3 - Evaluation of Methods and Devices Used in the Capture, Sorting, Holding, Transport and Release of Fish	01/04 04/04 06/04 (30 day comment cycle) 06/04 (30 day comment cycle)
F16	Evaluation of Project Effects on Instream Flows and Fish Habitat D.R. Phase 1 F.R. Phase 2	07/02 02/04
F21	Project Effects on Predation of Feather River Juvenile Anadromous Salmonids I.R. Task 4 - Predation PM&E Literature Review I.R. Task 1 and F3.2 Task 2 - Literature Review of Life History and Habitat Requirements for Feather River Fish Species F.R. Task 1, F3.2 Task 2, and F15 Task 1 - Literature Review of Life History and Habitat Requirement for Feather River Fish Species D.R. Task 2 and F3.2 Task 1 - Fish Distribution in the Feather River below Thermalito Diversion Dam to the Confluence with the Sacramento River F.R. Task 3 - Incorporate Results of Tasks 1 and 2	02/03 01/03 04/04 01/03 05/04
Environmental-Geomorphic		
G1	Effects of Project Operations on Geomorphic Processes Upstream of Oroville Dam I.R. Task 2 - Map the Channel Resources in the Tributaries above Oroville Dam and Task 3 - Re-Survey Reservoir Cross-Sections and Determine Sediment in Storage F.R.	04/03 04/04

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Environmental-Geomorphic - continued		
G2	Effects of Project Operations on Geomorphic Process Downstream of Oroville Dam	
	I.R.	04/03
	F.R. Task 1.1 - Bibliography and Index	06/04 (30 day comment cycle)
	F.R. Task 1.2 & 4 - Physiographic Setting and Mesohabitat	04/04
	D.R. Task 7 - Hydraulic and Sediment Transport Modeling with Fluvial 12	03/04
Environmental-Terrestrial		
T1	F.R. Effects of Project Operations and Features on Wildlife and Wildlife Habitat	04/04
T2	Project Effects on Special Status Species	
	F.R. Project Effects on Special Status Wildlife Species	02/04
	F.R. Project Effects on Special Status Plant Species	03/04
T4	F.R. Biodiversity, Vegetation Communities, and Wildlife Habitat Mapping	12/03
T6	I.R. Interagency Wildlife Management Coordination and Wildlife Management Plan Development	02/04
T7	F.R. Project Effects on Noxious Terrestrial and Aquatic Plant Species	06/04 (30 day comment cycle)
T8	F.R. Project Effects on Non-Native Wildlife	09/03
T9	F.R. Recreation and Wildlife	06/04 (30 day comment cycle)
T11	F.R. Effects of Fuel Load Management and Fire Prevention on Wildlife and Plant Communities	10/03
Environmental-Water Quality		
W2	Contaminant Accumulation in Fish, Sediments, and the Aquatic Food Chain	
	D.R. Phase 1	02/04
W3	Recreational Facilities and Operations Effects on Water Quality	
	I.R. Task 1A - Identification of Potential Effects to Water Quality	11/02
W5	Project Effects on Groundwater	
	I.R. Task 1, Phase 1 - Inventory Existing Wells and Assessment of Existing Groundwater Data and Current Groundwater Monitoring Activities	01/03
	I.R. Task 1, Phase 1 - Inventory Existing Wells and Assessment of Existing Groundwater Data and Current Groundwater Monitoring Activities (Revised)	05/03
	D.R. Task 1	03/04
W7	I.R. Land and Watershed Management Effects on Water Quality	02/03
W9	Project Effects on Natural Protective Process	
	F.R. Task 4	06/04 (30 day comment cycle)
Land Use, Land Management, & Aesthetics		
L1	I.R. Land Use Study	12/03
L3	F.R. Comprehensive Plan Consistency Evaluation	05/04
L5	F.R. Fuel Load Management Evaluation	05/04
Recreation and Socioeconomics		
R1	F.R. Vehicular Access Study	09/03
R2	F.R. Recreation Safety Assessment	02/04
R3	F.R. Assess Relationship of Project Operations and Recreation	05/04
R4	F.R. Assess Relationship of Fish/Wildlife Management of Recreation	05/04
R5	F.R. Assessment of Recreation Areas Management	06/04

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Recreation and Socioeconomics - continued		
R6	F.R. ADA Accessibility Assessment	09/03
R7/R9/R13	I.R. Reservoir Boating - Existing Recreation Use-Recreation Surveys, Critical Path Recreation Field Studies	02/03
R7	F.R. Reservoir Boating	02/04
R8	F.R. Recreation Carrying Capacity	06/04
R9	F.R. Existing Recreation Use Study	02/04
R10	F.R. Recreation Facility Inventory and Condition Report	09/03
R11	F.R. Recreation and Public Use Impact Assessment.	02/04
R12	F.R. Projected Recreation Use	05/04
R13	D.R. Recreation Surveys	06/04
R14	F.R. Assess Regional Recreation Barriers to Recreation	02/04
R15	F.R. Recreation Suitability	02/04
R16	F.R. Whitewater and River Boating	02/04
R17	F.R. Recreation Needs Analysis	06/04
R18	F.R. Recreation Activity, Spending, and Associated Economic Impacts	05/04
R19	F.R. Fiscal Impacts	05/04
R18/R19	Recreation Activity, Spending, and Associated Economic Impacts	
	F.R. Phase 1 Background Report - Economic and Fiscal Conditions	05/03
	D.R. Phase 2 Background Report - Property Value Analysis using a Hedonic Property-Pricing Model	02/04
	D.R. Phase 2 Background Report - Recreation and Tourism Economy in Oroville	02/04